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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,157	09/19/2003	Mutsumi Katayama	HGM-108-A	8732
21828 7590 07/05/2007 CARRIER BLACKMAN AND ASSOCIATES 24101 NOVI ROAD SUITE 100 NOVI, MI 48375			EXAMINER NGUYEN, TUAN HOANG	
			ART UNIT 2618	PAPER NUMBER
			NOTIFICATION DATE 07/05/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/667,157

Applicant(s)

KATAYAMA ET AL.

Examiner

Tuan H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/18/2006 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1--26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross III (US PUB. 2003/0092384 hereinafter, "Ross") in view of Lempio et al. (U.S PAT. 6,831,896 hereinafter, "Lempio").

Consider claim 1, Ross teaches a wireless network system for use with two vehicles, system comprising: a first relay device (100) including first (120) and second (130) Bluetooth modules, each of the first and second Bluetooth modules capable of performing a cable communication irrespective of which is a master or slave, wherein said relay device is configured to be mounted to a first vehicle of said two vehicles (fig. 1 pages 1 and 2 [0011]); and at least one first wireless terminal (110) including a third Bluetooth module (112), wherein the first and third Bluetooth modules structure a first piconet in which the first Bluetooth module is a master, and the third Bluetooth module is a slave (fig. 1 page 2 [0014]-[0015]), the second Bluetooth module (130) structures a second piconet (fig. 1 page 2 [0014]).

Ross does not explicitly show that the first piconet and the second piconet structure a network.

In the same field of endeavor, Lempio teaches the first piconet and the second piconet structure a network (fig. 1 col. 2 lines 55-67 and col. 3 lines 21-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, the first piconet and the second piconet structure a network, as taught by Lempio, in order to provide a short range RF network having routing capabilities for communicating data between one or more terminal devices and/or a host among a select one of a plurality of communication paths.

Consider claim 2, Lempio further teaches a second relay device including a fourth Bluetooth® module (fig. 1 col. 4 lines 19-32), wherein said second relay is

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configured to be mounted to a second vehicle of said two vehicles (fig. 1 col. 1 lines 55-67 i.e., the second relay interpreted one of communication paths (16)) ; and at least one second wireless terminal including a fifth Bluetooth® module wherein the second, fourth, and fifth Bluetooth® modules structure a second piconet in which the fourth Bluetooth® module is a master, and the second and fifth Bluetooth® modules are slaves (figs. 1, 2A and 2B col. 4 lines 19-32).

Consider claim 3, Lempio further teaches a second relay device including fourth and sixth Bluetooth® modules, each of the fourth and sixth Bluetooth® modules capable of performing a cable communication irrespective of which is a master or slave, wherein said second relay device is configured to be mounted to a second vehicle of said two vehicles (figs. 1, 2A and 2B col. 3 line 66 through col. 4 line 32); at least one second wireless terminal including a fifth Bluetooth® module (figs. 1, 2A and 2B col. 4 lines 19-32); the second and fourth Bluetooth® modules structure a third piconet in which the fourth Bluetooth® module is a master, and the second Bluetooth® module is a slave (figs. 1, 2A and 2B col. 3 line 66 through col. 4 line 32); wherein the fifth and sixth Bluetooth® modules structure a third piconet in which the sixth Bluetooth® module is the master, and the fifth Bluetooth® module is the slave (figs. 1, 2A and 2B col. 4 lines 19-32); and wherein the first, second, and third piconets structure a network (figs. 1, 2A and 2B col. 4 lines 19-32).

Consider claim 14, Ross teaches in a wireless network system constructed by a plurality of Bluetooth terminals, wherein the system comprises: a first relay device (100) including first (120) and second (130) Bluetooth modules, each of the Bluetooth modules performs a cable communication irrespective of which is a master/slave, wherein said first relay device is configured to be mounted on a first vehicle (fig. 1 pages 1 and 2 [0011]); and at least one first wireless terminal (110) including a third Bluetooth module (112), and in the method, the first and third Bluetooth modules communicate with each other on a first piconet in which the first Bluetooth module is a master, and the third Bluetooth module is a slave (fig. 1 page 2 [0014]-[0015]), the second Bluetooth module communicates with any one of the other Bluetooth modules on a second piconet (fig. 1 page 2 [0014]).

Ross does not explicitly show that the first Piconet and the other piconet structure a network.

In the same field of endeavor, Lempio teaches the first Piconet and the other piconet structure a network (fig. 1 col. 2 lines 55-67 and col. 3 lines 21-49).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, the first Piconet and the other piconet structure a network, as taught by Lempio, in order to provide a short range RF network having routing capabilities for communicating data between one or more terminal devices and/or a host among a select one of a plurality of communication paths.

Consider claims 4 and 17, Lempio further teaches the first and third Bluetooth modules communicate with each other with transmission electricity conforming to a class 2 or 3 (read on broadcast range of several meters, e.g. class 3 has the maximum range is 10 meters) of a Bluetooth standard (col. 1 lines 25-28).

Consider claims 5 and 18, Lempio further teaches the second, fourth, and fifth Bluetooth modules communicate with one another with transmission electricity conforming to a class 1 (read on high power mode, e.g. class 1 has a power up to 100 milliwatts compares to class 3 is 1 milliwatts) of a Bluetooth standard (col. 3 lines 60-65).

Consider claims 6 and 19, Lempio further teaches the fifth Bluetooth module includes means for restricting transmission electricity (col. 1 lines 25-28).

Consider claims 7 and 20, Lempio further teaches the second and fourth Bluetooth modules communicate with each other with transmission electricity conforming to a class 1 of a Bluetooth standard (col. 3 lines 60-65).

Consider claims 8 and 21, Lempio further teaches the fifth and sixth Bluetooth modules communicate with each other with transmission electricity conforming to a class 2 or 3 of a Bluetooth standard (col. 1 lines 25-28).

Consider claims 9 and 22, Ross further teaches an SCO link or an ACL link is established between the Bluetooth modules (page 3 [0022]).

Consider claims 10 and 23, Lempio further teaches in the first relay device, the first and second Bluetooth modules are controlled by common control means (fig. 2A col. 4 lines 33-41).

Consider claims 11 and 24, Lempio further teaches the first and second Bluetooth modules and the control means are connected together via a bus (fig. 2A col. 4 lines 33-41).

Consider claims 12 and 25, Lempio further teaches in the second relay device, the fourth and sixth Bluetooth modules are controlled by common control means (fig. 2A col. 4 lines 33-41).

Consider claims 13 and 26, Lempio further teaches the fourth and sixth Bluetooth modules and the control means are connected together via a bus (fig. 2A col. 4 lines 33-41).

Consider claim 15, Lempio teaches the system comprises: a second relay device including a fourth Bluetooth module, said second relay device being configured to be mounted on a second vehicle (fig. 1 col. 2 lines 62-65); and at least one second

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wireless terminal including a fifth Bluetooth module, and in the method, the second, fourth, and fifth Bluetooth modules communicate with one another on a second piconet in which the fourth Bluetooth module is a master, and the second and fifth Bluetooth modules are a slaves (figs. 1, 2A and 2B col. 4 lines 19-32); and the first and second piconets structure a network, said network being configured to function independent of a host (fig. 1 col. 2 lines 55-67 and col. 3 lines 21-49).

Consider claim 16, Lempio teaches the system comprises: a second relay device including fourth and sixth Bluetooth modules, and each of the Bluetooth modules performs a cable communication irrespective of which is a master/slave, wherein said second relay device being configured to be mounted on a second vehicle (figs. 1, 2A and 2B col. 3 line 66 through col. 4 line 32); and at least one second wireless terminal including a fifth Bluetooth module, and in the method, the second and fourth Bluetooth modules communicate with one another on a third Piconet in which the fourth Bluetooth module is a master, and the second Bluetooth module is a slave, the fifth and sixth Bluetooth modules communicate with each other on a third piconet in which the sixth Bluetooth module is the master, and the fifth Bluetooth module is the slave (figs. 1, 2A and 2B col. 4 lines 19-32); and the first, second, and third piconets structure a network, said network being configured to function independent of a host (fig. 1 col. 2 lines 55-67 and col. 3 lines 21-49).

Conclusion

4. Any response to this action should be mailed to:

Mail Stop_____ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

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Randolph Building

401 Dulany Street

Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571) 272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

Tuan Nguyen
Examiner
Art Unit 2618

T.N.


NAY MAUNG
SUPERVISORY PATENT EXAMINER